ENGINEERING FORUM TELECONFERENCE MINUTES
February 2, 2000

CURRENT ACTIVITIES

RAC Survey

JoAnn Cola (Region 9) thanked those forum members who participated in the RAC survey. Most respondents said that non-federal facility RPMs were not qualified to act as contract managers at construction sites. She mentioned that Regions 3 and 4 had shown some interest in assuming these new responsibilities. Frank Vavra (Region 3) expressed surprise and concern over his Region's supposed interest in this endeavor. He estimated that 90 percent of the people in Region 3 were opposed to the idea. He believes that Region 3 does not have the resources, skills, or incentives to commit to this project. In addition, it would be difficult to convince people to leave the office and live at the site. JoAnn agreed that work load issues were a problem in all Regions. JoAnn will try to get feedback from Fran and distribute the information to the forum. Rich Steimle (TIO) offered to arrange a time during the spring TSP conference when Tracy Hopkins (OERR) could discuss this topic with forum members in greater detail.

Oxygenates Issue Paper

Trish Erickson (NRMRL/Cinc.) reported that the contractor funding package should have been received by SAIC on January 17th. They have 2 weeks to submit a workplan. She has received input from several people and will forward that information to the contractor. She has also conducted a RIM search incorporating approximately 70 prospective technologies for oxygenates. The Issue Paper is moving along according to schedule.

Landfill Reuse Roundtable Notes

Camille Hueni (Region 6) reported that the Roundtable Notes were finished and that she would distribute them electronically to the committee after a final read through this afternoon. Comments on the final draft should be addressed to Keith Arnold (EMS) or Chet Janowski (Region 1).

Bob Stamnes received a special thanks for1 ensuring that several papers were posted on the website.

Bob noted that the roundtable notes need to be pulled out of the meeting notes and placed in the "Roundtable Notes" section of the website. EMS will take care of this.

Perchlorate POCs

Camille Hueni asked Keith Arnod to distribute an announcement regarding perchlorate point of contacts. Debra Tellez (Region 6), Interagency Perchlorate Steering Committee (IPSC) member, is compiling a list of regional personnel who wish to serve, or are currently serving, as points of contact for perchlorate issues in their Region (Name, Phone #, FAX #, Mailing Address). She is also requesting a list of those Project Managers that have perchlorate issues associated with their facilities, and a contact within the Public Water Supply (drinking water) program. The IPSC will use these lists to update Regional personnel of new information concerning perchlorates as it becomes available, and to establish a network of persons with specific perchlorate issues. For more information on perchlorate treatment, you can contact Jim Halek, Executive Vice President of Marketing for Enhanced Recovery, Inc., at (817) 488-5770 or at (612) 544-1905. Jim is based in Southlake, Texas, but can also be found at the Minnesota number.

Forum members should get this information back to Debra by **February 18, 2000**. If you have any questions, Debra can be reached at (214) 665-8140.

Spring Meeting
Diane Dopkin (EMS) will distribute the information on the hotel by the end of the month. Camille noted that the number of speakers requiring paid travel expenses must be determined by the end of February. The EF may have working sessions on the issue papers at some point during the spring meeting. Wednesday and Thursday are still wide open, and the agenda must be solidified soon.

TECHNICAL ISSUES
This month there were three technical questions:

Issue 1
The first issue, which was submitted by Frank Vavra (Region 3), concerns the various disposal options for soil incinerator ash, cyclone dust, and baghouse dust. Although this is primarily a site-specific issue, it is helpful to know how these materials are being treated and disposed on a national level. Dioxin is not necessarily a listed waste. It can be present due to formation in the kiln, from a waste that is not a listed waste, or it could be from dioxins in a listed waste. This discussion revolved around what to do when it is not from a listed waste. If the waste is a dioxin listed waste, the regulations are very prescriptive and RPMs know what to do. The more difficult call is what to do when they form in the incineration process and are really not regulated. In most cases, this sort of waste, particularly from soil incineration, is being used as backfill. The major concern is dioxin, which is a listed waste that may be present in ash and dust in small quantities. What can and should be done with ash or dust containing 25 ppb of dioxin? Will a municipal landfill accept the waste?

JoAnn Camacho (NERL/ESD-LV) recommended placing a specification of 1 ppb for dioxin on incinerator ash. A forum member asked if there was some global guidance on this; there recently was a soil cleanup level at a daycare center of 1 ppb. If 1 ppb is safe for a day care center, it doesn't make sense to send soils which barely exceed this level back through an incinerator for another trip.. One ppb is the clean up level for residential zones, while 5ppb is the level for industrial areas. Lorelei Kowalski (ORD) referred to a guidance document (OSWER Directive 9200.4-26), issued April 13, 1998, that gives an approach for addressing dioxin in soils at CERCLA and RCRA sites. This document discusses selecting 1 ppb as the clean up level for dioxin in soils at Superfund sites where dioxin is the principal contaminant, with a suggested level of 5-20 ppb for industrial and commercial sites.

When dioxin is not one of the contaminants in the feed, but is found in the incinerator ash, you should: 1) try to address the issue before it becomes a problem, and 2) if dioxin is found in the ash, the appropriate disposal action will depend on what you plan on doing with the waste. This is a facility-specific specification. Frank mentioned that it would be beneficial if the Agency had a consistent and clear guidance on this issue.

Steve Kinser cited the Missouri Electric Works where they allow incinerator ash to be backfilled if the TDQ is less than 1ppb, otherwise they reburn it. JoAnn noted that because the concentrations of dioxin were higher than 1 ppb, EPA was able to force them to increase the process temperature to meet the specification. JoAnn said that it is critical to try to give a specification for the ash whether there is dioxin in the soil or not. She recommended enforcing this specification and mentioned that she or John Gilbert could provide precedence for this tactic. Ed Mead (USACE) recommended a test burn to analyze the baghouse or cyclone dust to ensure it meets specifications before being used as backfill. He also suggested placing the waste well above the groundwater table or solidifying it first (in cases of extreme contamination).

Issue 2

Frank Vavra (Region 3) asked whether any forum members had experience using sulfided activated carbon for mercury adsorption and, more specifically, if the carbon could be regenerated onsite. Gaseous mercury emissions react with the sulfide to form mercuric sulfides, which sorb to the carbon. He indicated that sulfided activated carbon is being used at a hazardous waste incinerator in the Czech Republic. It is injected ahead of the baghouse treatment, which operates at about 500°F. When the baghouse dusts shake down, they are transported to a screw conveyor that carries the hot kilned soil. The temperature of the dust is raised back up to 1100°F, and the sorbed mercury is reheated and vaporized. The vapor is passed through both a HEPA filter and sulfided activated carbon for treatment. Vavra questioned whether this treatment process was effective. He also asked the forum members whether they have tried desorbing mercury from sulfided activated carbon and whether onsite regeneration of activated carbon was feasible.

Ed Mead (USACE) suggested contacting manufacturers of activated carbon, such as the Calgon Corporation in Pittsburgh, PA, for information on how to regenerate the carbon. Ed supplied the following list of manufacturers that sell permanent equipment to regenerate spent activated carbon at the hazardous waste treatment site (he recommended contacting Mark Stenzel of Calgon Corporation first):

AmCec, Inc.
2525 Cabot Drive Suite 205
Lisle, IL 60532
630-577-0400(v)
630-577-0401(fax)
Robert E. Saxer. P.E., Sales Manager (12-97)

Dedert Corporation
20000 Governors Drive
Olympia Fields, IL 60461-1074
708-747-7000 (v)
708-755-8815 (fax)
M. John Ruhl, Mgr. Solvent Recovery Division

Continental Remediation Systems, Inc.
277 Linden St. Suite 201
Wellesley, MA 02181-5920
617-431-2575(v)
617-431-2584(fax)
John Patterson, President (12-97)
http://www.continentalremediation.com

Raysolv Incorporated
39 Golf Links Avenue
Picataway, NJ 08854
732-981-0500 (v)
732-699-9346 (fax)
Gyula B. Varga, President

Westport Environmental Systems
251 Forge Road
Westport, MA 02790
800-343-9411 (v), 508-636-2088 (fax)

The following is a list of manufacturers that provide facilities to ship spent carbon for reactivation:

Advanced Recovery Technologies Corp.
4784 Muskegon, MI 49442
616-788-2911(v)
616-788-2317(fax)
L. Nicole Holden , Applications Specialist

Calgon Carbon Corporation
PO Box 717
Pittsburgh, PA 15230-0717
412-787-6700 (v)
412-787-6324 (fax)
Mark Stenzel
Manager, Remediation Systems & Services

Envirotrol Inc.
20406 Autumn Shore Drive
Katy, TX 77450
261-646-9550 (v)
261-646-0470

Nichem Co.
373 Route 46 West
Building D
Fairfield, NJ 07004
973-882-0988 ext. 106 (v)
973-882-1882 (fax)
Laurence D'Alberti, Sales Manager

Norit Americas Inc
Route 3, Box 69-6
Pryor, OK 74361-9803
918-825-5570 (v)
918-825-5665 (fax)
Don C. Ivey, P.E., Reaction & Services Manager

U.S. Filter Westates
2523 Mutahar Street
PO Box E
Parker, AZ 85344
520-669-5758 (v)
520-669-5775 (fax)
Monte McCue

Issue 3

Dan Pacquin (University of Hawaii) asked the Engineering Forum how chlordane-contaminated sediment can be treated. He is interested in an effective technology that is cheaper than dredging and landfill disposal. He described the Ala Wai Canal in Waikiki, which is polluted with chlordane-contaminated sediment. The canal is located in a highly visible area near the Honolulu Zoo. The sediment contains up to 830 ppm chlordane, in addition to PCBs and metals. The sediment has a high silt and clay content and a high salinity.

Johnny Schockley (USACE) indicated that he would forward a list of technologies that have been used to treat chlordane-contaminated soil at federal facilities. Trish Erikson (NRMRL-Cincinnati) agreed to forward a list of emerging technologies that NRMRL screened to clean up Pearl Harbor sediments containing similar contaminants. She commented that she didn't believe that a quick, cheap, clean up technology exists. JoAnn Camacho (ERT/Edison) suggested contacting Mark Springer at ERT/Edison (732-906-6826) to discuss the impact of the chlordane contamination on human health and ecological risks.

Bruce Pivetz (Mantech, SPRD-Ada) indicated that not much research has been done on the phytoremediation of chlordane. Tests have indicated that the dissipation of chlordane does not differ between planted and unplanted plots. Chlordane persists in anaerobic waterlogged soils and sediments. Pivetz noted, however, that plants have been used to make the soil more aerobic and improve its texture so the soil could be treated more easily by other technologies. He added that marsh plants, such as canary reeds, can remove water from the sediment (in approximately six months) so it becomes more like soil.

Ed Mead suggested conducting a composting test on the sediment—similar to the ones performed by USACE to test military chemicals like RDX. The test is performed by adding nutrients and bulking agents (whatever is available locally) to the sediment in a cooler. The mixture must be stirred and the temperature monitored daily. It is a long shot that composting will successfully treat chlordane-contaminated sediment, but the simple test is worth trying. Mead offered to put Pacquin in touch with Chuck Wells at USACE for more information. JoAnn Camacho suggested contacting Norman Francinques with the Waterways Experiment Station at (601) 634-3703 for information on dredging sediments.

Rich Ho (Region 2) suggested researching a pilot study (3 different technologies) that was done in Region 2 to treat dredged sediments from the NY/NJ harbor. The URL for the press release is: http://www.epa.gov/r02earth/epd/99026.htm. He also thinks that BioGenesis has a webpage. You should contact Eric Stern 212-637-3806 for additional info.

Camille Hueni (Region 6) suggested consulting "Tech Trends", for more detail on the project. Go to <<http://clu-in.com>> of <<http://www.clu-in.org>> and enter a search for "Tech Trends" (it's not on the drop-down appendix). The article is "Sediment Decontamination Program for the Port of New York and New Jersey," Issue No. 30, August 1998. If you can't access it, let her know, and she will fax you the two pages.

If anyone has any questions or ideas for Dan, he can be reached at the following address:

Dan Paquin, P.E.
Mechanical Engineer
Biosystems Engineering Dept.
University of Hawaii
3050 Maile Way, Gilmore 111
Honolulu, HI 96822
Ph: (808) 956-7259
FAX: (808) 956-9269

SCIENTIST-TO-SCIENTIST MEETINGS

ORD is planning a one-day scientist to scientist meeting on MTBE in the spring or summer of 2000. The purpose of this meeting between ORD and the regional programs is to explain ORD's research regarding MTBE and get feedback on research needs from the regions. Lorelei Kowalski (ORD-HQ) would like a volunteer from each of the forums to participate in a steering committee to plan the meeting. There will be 4 or 5 steering committee conference calls beginning February 9. The Forum representatives are expected to provide the Forum perspective as well as update the other Forum members. Please contact JoAnn Cola if you are interested in participating. JoAnn agreed to participate on the February 9th call until a Engineering Forum representative is found. Another scientist-to-scientist meeting that will focus on mining issues is also being planned for mid-2000. Anyone who is interested in participating on the Steering Committee or in the meeting itself should contact Ed Hanlon (ORD) at (202) 564-6761.

Camille Hueni asked for volunteers to serve on a committee to prepare an agenda for the spring meeting in DC. JoAnn Camacho (ERT/Edison) mentioned that ERT was putting together a course on revegetation. If anyone is interested, she can put them in touch with Scott Fredricks in DC. JoAnn will send Keith Arnold an outline and agenda on a Rutgers short course on revegetation. Another potential topic for the spring meeting is a project JoAnn is working on involving redoing the presumptive remedy on volatile organic sites.

Camille suggested carving out a few hours to devote to work sessions. JoAnn Camacho said she would be happy to help with planning these sessions. Deborah Griswold (DOE) asked if there had been any discussions about having sessions on long-term stewardship, surveillance, and maintenance. Camille said that there are no firm plans for any such sessions, but that they are open for suggestions. Deborah offered her assistance in planning any sessions on these topics. Tracy Hopkins offered to talk to the EF about RACS.

Rich Steimle (TIO) said that there were a number of issues that the EF should be briefed on; he will

try to get them on the agenda. A "meet the Engineering Forum" meeting was also suggested. Rich will get the co-chairs a list of folks who need to address the forum so that time can be properly budgeted. The Accomplishment Report for the past year will be distributed to the EF sometime the next week.

JoAnn Camacho and Bob Stamnes offered to assist with the planning for the spring meeting. Bob suggested a "public" review of participation at the next meeting. Members can also give a short review of what they have been involved in the past year. EF members should also poll the constituents in their Regions to see what sort of topics they would like the EF to address in the coming year. An informal canvas of constituents will be tried first.

ATTENDEES

Chet Janowski, Region 1
Mark Granger, Region 2
Frank Vavra, Region 3
Jon Bornholm, Region 4
Nate Nemani, Region 5
Camille Hueni, Region 6
Steve Kinser, Region 7
Bill Rothenmeyer, Region 8
JoAnn Cola, Region 9
Cynthia Wetmore, Region 9
Bob Stamnes, Region 10
Neil Thompson, Region 10
Rich Steimle, TIO
Lorelei Kowalski, ORD
JoAnn Camacho, ERT/Edison
Trish Erickson, NRMRL/Cinc.
Ed Mead, USACE
Johnny Schockley, USACE
Deborah Griswold, DOE–Albuquerque
Jim Harrington, NYSDEC
Dan Paquin, University of Hawaii
Bruce Pivetz, Mantech
Keith Arnold, EMS, Inc.